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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,811	12/12/2003	Han-sung Kim	Q78843	8849

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WASHINGTON, DC 20037

EXAMINER

BERHANU, SAMUEL

ART UNIT	PAPER NUMBER
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2838

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/733,811

Applicant(s)

KIM ET AL.

Examiner

Samuel Berhanu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/18/2004 2/7/2005
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3,5 and 7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Griffin et al. (5,734,252).

Regarding claim 1, Griffin et al. disclose in Figures 1 and 3 a battery controller, comprising: a push switch (130,440) operable to be switched on and off; a power switch (220,560) connected to the push switch) and operable to allow a leakage current to flow through the power switch based on input from the push switch (160,170,240,250); a battery pack (100) including a battery (110) and a protection circuit module (PCM) (120) for turning off the battery when the leakage current flows through the power switch; and a charging circuit for charging the battery pack (120).

Regarding claim 2, wherein the PCM is operable to turn the battery on when the PCM detects that charging currents are being applied to the battery pack (120, Column 1, lines 65-67 and Column 2 lines 1-3).

Regarding claim 3, wherein the battery pack (100) is operable to receive the charging currents from a DC adapter (230) connected to the battery pack

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when the battery is in an off state (230, Column 2, lines 53-54) .

Regarding claim 5, wherein the battery controller (120) is disposed in a personal telecommunication device, and the push switch is operated via an opening (160,240) in an outer surface of the personal telecommunication device (Column 3, lines 29-35).

Regarding claim 7, a battery controller, comprising: a switch ; means (120) connected to the switch (130) operable to allow a leakage current to flow to a battery pack based on input from the switch (220); the battery pack (100) including a battery (110), means for detecting the leakage current (120), and means for turning off the battery when the leakage current is detected; and means for charging the battery pack (element 120, Column 1, lines 65-67 and Column 2 lines 1-3).

Regarding claim 8, wherein the battery controller (120) is disposed in a personal telecommunication device, and the push switch is operated via an opening (160,240) in an outer surface of the personal telecommunication device (Column 3, lines 29-35).

Regarding claim 9, a battery controller (120) , further including means for detecting charging currents (150) applied to the battery pack from the means for charging the battery pack (200); and means for turning on the battery on when the means for detecting charging currents detects that charging currents are being applied to the battery pack. (Column 2, lines 40-44)

Regarding claim 10, wherein the means for charging the battery pack are connected with a DC adapter (230, Column 2, lines 53-54).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Griffin et al. (5,734,252) in view of Campo (6,073,033).

Regarding claim 4, Griffin et al. disclose the claimed invention, except a battery pack includes a rechargeable battery comprising at least one of Lithium-ion, lithium-ion polymer, and NiMH batteries. However, Campo discloses in Figure 2, a battery pack (45) includes a rechargeable battery comprising at least one of Lithium-ion, lithium-ion polymer, and NiMH batteries (column 8, lines 4-9). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use a suitable type of battery such as NiCad, NiMH, lithim ion as disclosed by Campo in ^{the} Griffin et al. phone in order to have a high charge storage capacity for ^{an} extended period of time.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

Claim Rejections - 35 USC § 103

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4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Griffin et al. (5,734,252) in view of Campo (6,073,033).

Regarding claim 4, Griffin et al. disclose the claimed invention, except a battery pack includes a rechargeable battery comprising at least one of Lithium-ion, lithium-ion polymer, and NiMH batteries. However, Campo discloses in Figure 2, a battery pack (45) includes a rechargeable battery comprising at least one of Lithium-ion, lithium-ion polymer, and NiMH batteries (column 8, lines 4-9). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use a suitable type of battery such as NiCad, NiMH, lithium ion as disclosed by Campo in the Griffin et al. phone in order to have a high charge storage capacity for an extended period of time.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

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said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Griffin et al. (5,734,252) in view of Compton et al. (4,042,836).

Regarding claim 6, Griffin et al disclose in Figure 1, the battery controller (120), wherein the battery (110) is turned off when the PCM (120) of the battery pack (100) detects the leakage current and accordingly an FET within the battery pack is turned off. Griffin et al do not disclose the switch is an FET. However, Compton et al. disclose in Figure 3 an FET switch. It would have been obvious to a person having ordinary skill in the art at the time of the invention to implement FET switches as taught by Compton et al. in the Griffin et al. charging circuit in order to provide an efficient and rapid transition from charging state to non-charging state.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel Berhanu whose telephone number is 571-272-8430. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Handwritten signature of Michael Sherry, dated 5/16/05.

MICHAEL SHERRY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800